When it comes to the products we use in healthcare and how these are managed throughout the supply chain, stakeholders are increasingly working together by combining emerging technologies and available data to simplify this complex environment. With an increased requirement and demand for traceability of products, not only in the 'supply chain' itself but also from patient groups and within regulations it is worth pausing to ensure that we are building traceability into our supply chains. This means investing in systems and technology that will make this possible in the future.

In the past, it was commonplace to capture some details of the products used in caring for a patient so that we could properly charge for the care provided. Now, the need for greater detail is being driven by patients who are demanding to have accurate and up-to-date records of what devices have been implanted or used on them. Safety practices and recent incidents where patient contact related to product issues were inhibited due to a lack of available data have highlighted the need for change.

Regulatory changes are now occurring globally that are reinforcing the need for a change of behaviour in how we manage the supply chains through to the patient. In order to make sure it is easy for clinicians to keep accurate records for the sake of patients, the procurement and supply chain that precedes the clinical interaction and the technology solutions that are used throughout must enable their part of the healthcare digital thread.

Understanding the importance of the Healthcare Digital Thread

By working with the healthcare community GS1 has defined the Healthcare Digital Thread (opposite) to help depict the collaborative interrelationships and connections between healthcare stakeholders. It also shows how the use of data and global standards helps to drive the physical flow of products and services, as well as the digital exchange of patient and transactional data.

By being able to visualise the interrelationships, each of the stakeholder groups is better able to understand their role in the continuum. This reinforces the need for interoperability and technology that supports consistent data and the traceability of all products that are used in healthcare.

An effective digital thread in the real world calls for increased collaboration between all stakeholders. Importantly, in the case of Healthcare providers and solution providers this is critical so as to increase interoperability between electronic health records, enterprise resource planning, clinical systems and other relevant systems and solutions. Also critical is ensuring the healthcare supply chain and related solutions are not forgotten in this ecosystem.

The benefits to the health providers and patients are obvious by ensuring we have consistent data and the ability to track products through to patients, however the benefits for manufacturers are just as
significant. With an effective and interoperable ‘digital thread’, product data can be efficiently captured, exchanged and analysed for improvements to product development and manufacturing. This in turn can increase the velocity of new product introductions, the execution of needed product changes and lead to new services to distributors and healthcare providers.

Most manufacturers in healthcare understand that they can no longer just make and sell a product. By working with healthcare providers, solution providers and government, we can trace the products back to the manufacturer and track them forward to the healthcare provider and even to the patient, thus creating a better health system.

Balancing the priorities and understanding the need to change

For a long time, we have seemingly not had the impetus to drive investment in healthcare supply chain, related IT systems or in building inventory management capability. Instead, we have been incrementally improving or relying on our people to deliver efficiency and accuracy as best as they can. This appears set to change as we now look anew at the needs of the system as a whole.
The global move towards a harmonised and visible approach on how medical products are managed has now reached Australia. The most significant signal of change has been the consultation released in January 2019 from the Therapeutic Goods Administration (TGA) regarding a proposed Unique Device Identification (UDI) system for medical devices. The signals have however been there for some time with relation to pharmaceuticals. Change is inevitable with the increased emphasis on use of global standards to support data accuracy related to electronic management, the medicine safety initiatives led by the Australian Digital Health Agency and the push from clinicians themselves who are wanting to make improvements in patient safety.

Effective change in a complex health system like that of Australia's is a challenge due to its geography, the mix of public and private providers, our diversity of needs across our population and our often-complicated funding models. These are the reasons why it is necessary now to start the process of adopting future needs within planned upgrades, to understand how we incorporate when building new facilities, to ensure that what we expect from our technology partners is clear and to address this in our processes when sourcing and developing products of all types.

There will be no 'big bang' where change has happened suddenly, nor should we be waiting for others to complete their part of the process before we do anything. All stakeholders - large and small - across the digital thread will need to look at their current capabilities and understand what they need to do to enable traceability. For the sake of our patients, all stakeholders must start planning for and gradually implementing changes within their organisations.

Now, the need for greater detail is being driven by patients who are demanding to have accurate and up-to-date records of what devices have been implanted or used on them. Provided for use with expressed permission of the patient.

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